



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
01.12.1999 Bulletin 1999/48

(51) Int. Cl.⁶: **G11B 20/00, G11B 7/00**

(43) Date of publication A2:
15.07.1998 Bulletin 1998/29

(21) Application number: **98100149.8**

(22) Date of filing: **07.01.1998**

(84) Designated Contracting States:
**AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC
 NL PT SE**
 Designated Extension States:
AL LT LV MK RO SI

(72) Inventor: **Mochizuki, Masaki**
Yokohama-shi, Kanagawa-ken (JP)

(30) Priority: **10.01.1997 JP 1475297**
21.01.1997 JP 2198997
31.03.1997 JP 9660297

(74) Representative:
Wagner, Karl H., Dipl.-Ing.
WAGNER & GEYER
Patentanwälte
Gewürzmühlstrasse 5
80538 München (DE)

(71) Applicant:
VICTOR COMPANY OF JAPAN LIMITED
Yokohama-Shi Kanagawa-Ken (JP)

(54) **Cipher key and reproduction methods, apparatuses, systems and optical disc**

(57) Plural program information and a BCA (Burst Cutting Area) number of the optical disc 100 is previously recorded in the optical disc 100. A drive ID is stored in the nonvolatile memory 104a of the reproduction apparatus 104. A user of the reproduction apparatus 104 notifies the BCA number, the drive ID, and a number of preferred program information to the software house (software supplier) 110 on the condition that the user pays for the reproduction of the preferred

program information recorded in the optical disc 100. The software house 110 notifies a cipher key to the reproduction apparatus 104 or the user. A title key is calculated in the reproduction apparatus 104 in accordance with the BCA number, the drive ID, and the cipher key. The preferred information recorded in the optical disc 100 is permitted to be reproduced by using the title key.

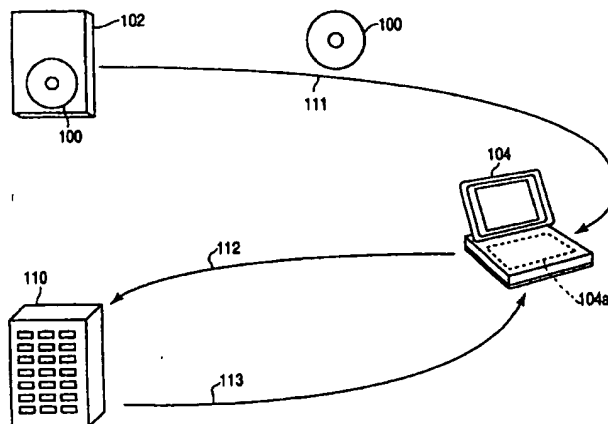


Fig. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 10 0149

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP 0 561 685 A (FUJITSU LTD) 22 September 1993 (1993-09-22)	2,14,16, 22,23, 27,28, 37,38	G11B20/00 G11B7/00
A	* column 3, line 32 - column 6, line 8 * * column 13, line 4 - line 26 * * figures 1,2,14 *	3,7,19, 20,32, 33,35,36	
X	EP 0 679 977 A (IBM) 2 November 1995 (1995-11-02)	4,17,29	
A	* column 10, line 34 - line 47 * * column 12, line 40 - line 54 * * column 14, line 27 - line 45 * * column 15, line 10 - line 23 * * column 18, line 18 - line 39 * * figures 10A,10B *	1-3, 5-16, 18-24, 26-28, 30-34	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
X	EP 0 191 162 A (IBM) 20 August 1986 (1986-08-20)	1,2,22, 23,37,38	G11B G06F
A	* column 5, line 45 - line 46 * * column 6, line 7 - column 7, line 33 * * column 7, line 54 - line 55 *	3-6, 12-20, 26,27, 35,36	
X	EP 0 636 962 A (SOFTWARE SECURITY INC) 1 February 1995 (1995-02-01)	4,17	
A	* the whole document *	7,18,42	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 7 October 1999	Examiner Ogor, M
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

EPO FORM 1503 03/92 (P4/C01)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 98 10 0149

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	PATENT ABSTRACTS OF JAPAN vol. 016, no. 495 (P-1436), 14 October 1992 (1992-10-14) & JP 04 178967 A (DAINIPPON PRINTING CO LTD), 25 June 1992 (1992-06-25)	25,39	
A	* abstract *	42	
A	PATENT ABSTRACTS OF JAPAN vol. 1996, no. 609, 30 September 1996 (1996-09-30) & JP 08 124305 A (SONY CORP), 17 May 1996 (1996-05-17) * abstract *	2,3	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
Place of search THE HAGUE		Date of completion of the search 7 October 1999	Examiner Ogor, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 98 10 0149

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

07-10-1999

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0561685 A	22-09-1993	JP 5257816 A	08-10-1993
		US 5392351 A	21-02-1995
		US 5555304 A	10-09-1996
		US 5796824 A	18-08-1998
EP 0679977 A	02-11-1995	US 5563946 A	08-10-1996
		JP 7295798 A	10-11-1995
EP 0191162 A	20-08-1986	CA 1238427 A	21-06-1988
		DE 3587072 A	18-03-1993
		JP 1630801 C	26-12-1991
		JP 2060007 B	14-12-1990
		JP 61145642 A	03-07-1986
		US 4757534 A	12-07-1988
EP 0636962 A	01-02-1995	US 5337357 A	09-08-1994
		CA 2120816 A	18-12-1994
JP 04178967 A	25-06-1992	NONE	
JP 08124305 A	17-05-1996	NONE	

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82